WEATHER IN THE UNITED STATES

GENERAL CONDITIONS

The outstanding feature of the month was the depression of the temperature as shown on Chart III of this REVIEW; precipitation was irregularly distributed. (See the inset on Chart IV.) Following the excessive rains of earlier months of the year drought prevailed in many localities.—*A. J. H.*

CYCLONES AND ANTICYCLONES

The tracks of 8 high-pressure and 14 low-pressure areas were plotted for the month of August. Low-pressure troughs lay over the Southern States or along the southern Atlantic coast during about 45 observation periods out of a possible 62 for the month. This pressure distribution was attended by cool weather to the North and East.

There was one hurricane, a major disturbance from the time it was first observed on the 21st, northeast of the Leeward Islands, until it passed over Iceland on the 27th.—*W. P. Day.*

THE WEATHER ELEMENTS

By P. C. DAY

PRESSURE AND WINDS

The outstanding feature of the weather for August, 1927, was the persistent coolness that existed throughout nearly the entire month over all portions of the country from the Plateau and Rocky Mountain districts eastward to the Atlantic coast, save in southern Florida and from southern Alabama westward to eastern New Mexico.

Generally speaking, there were no important fluctuations in the atmospheric pressure, the cyclones in particular being weak, often poorly defined and mainly without definite course over important length of paths. However, important precipitation occurred over extensive areas and in some locations rains were unusually frequent.

Precipitation was comparatively heavy along the entire Atlantic coast on the first two days and scattered showers prevailed on these dates also in the Plains States, some heavy amounts being received in Oklahoma and the western portions of Kansas and Nebraska. During the 3d showers continued over the middle Plains and extended eastward into the middle Mississippi and lower Ohio Valleys, local heavy falls occurring in eastern Kansas and western Missouri. On the following day the rain area extended into the Middle and South Atlantic States, though the falls were mainly light.

During the latter part of the first week only scattered showers were reported, but by the morning of the 8th a rather extensive area of precipitation had overspread portions of the middle Plains and thence eastward to the Ohio Valley and lower Lake region, with local heavy falls at wide distances. During the following 24 hours the rain area extended eastward to the Atlantic coast with heavy falls over much of the area from Maryland and West Virginia to New England.

Only local showers occurred from the 10th to 14th, but on the morning of the latter date some heavy amounts were measured in the middle Mississippi and lower Ohio Valleys and during the following 24 hours the rain area extended to the North Atlantic coast, and heavy falls were again reported from numerous points in New England and to the southward as far as Maryland. At the same time considerable precipitation occurred in the northern Rocky Mountain and near-by States, advancing during the 16th into the northern Plains and during the following day overspreading the upper and middle Mississippi Valley where a few heavy falls were measured. This rain area extended eastward during the 18th and 19th over the Atlantic Coast States from southern New England to Florida, though the falls were mainly light.

The first half of the last decade had only local showers at wide intervals of both time and space, though on the 23d and 24th the near approach of a tropical hurricane to the middle and north Atlantic coast gave some heavy rains over near-by areas from the Carolinas to New England, and at the same time local showers occurred from the middle Plains northeastward to the Great Lakes.

The last half of the third decade was mainly without important precipitation, save over the Northeastern States from the 27th to the 30th and locally in the western mountains about the same time.

Few of the rain areas referred to above were associated with more than slight depressions of the barometer, and such important winds as occurred were mainly associated with thunderstorms.

Anticyclones were in the main not important as to their individual occurrences, but they persisted to an unusual extent over the region of the Great Lakes, and low-pressure areas moving from the Rocky Mountain regions were forced to more southerly tracks than usual in their eastward movement, thus giving frequent and locally heavy rains in the regions westward and southwestward of the important high-pressure area, while over the anticyclonic area the precipitation was deficient. Anticyclonic conditions persisted throughout the month over the western coast districts and no important cyclone entered the country from that region.

The average sea-level barometric pressures were highest over the Great Lakes and upper Mississippi Valley, and lowest in the far Southwest and they were above normal in all portions save over the South Atlantic States, and locally in the far Northwest. The excesses were quite large from the Great Lakes to the Rocky Mountains, but elsewhere the departures were mainly small.

The prevailing winds were from northerly points over the Great Lakes, portions of the Ohio and Mississippi Valleys, and locally in the east Gulf and Middle Atlantic States. They were mainly from southerly points in the Great Plains and Northeastern States, and mostly variable in the remaining sections, as shown on Chart VI.

The usual details concerning the more important storms of the month appear in the table at the end of this section.

TEMPERATURE

As stated previously, the notable feature of the weather was the wide area from the Plateau and mountain regions eastward over which the average temperature was below normal, and the unusual extent of the individual negative departures over large areas in the central and northern districts.

The daily temperatures throughout were remarkably uniform, no change equal to 20° occurring in the 24-hour